

POWER DISCRETES
Description

Quick reference data

$$V_R = 600V - 1000V$$

$$I_F = 2.0A$$

$$t_{rr} = 3\mu S$$

$$I_R = 1.0\mu A$$

Features

- ◆ Avalanche capability
- ◆ High thermal shock resistance
- ◆ Glass passivated for hermetic sealing
- ◆ Low reverse leakage currents
- ◆ Low forward voltage drop

Absolute Maximum Ratings

Electrical specifications @ $T_A = 25^\circ C$ unless otherwise specified.

	Symbol	PM6	PM8	PM0	Units
Working Reverse Voltage	V_{RWM}	600	800	1000	V
Repetitive Reverse Voltage	V_{RRM}	600	800	1000	V
Surge Reverse Voltage	V_{RSM}	650	900	1100	V
Average Forward Current @ $55^\circ C$, lead length 0.375"	$I_{F(AV)}$	2.0			A
Repetitive Surge Current @ $55^\circ C$ in free air, lead length 0.375"	I_{FRM}	12.0			A
Non-Repetitive Surge Current ($t_p = 10ms$, half sinewave)	I_{FSM}	50			A
Storage Temperature Range	T_{STG}	-55 to +175			$^\circ C$

POWER DISCRETES

Electrical Specifications

	Symbol	PM6	PM8	PM0	Units
Average Forward Current	$I_{F(AV)}$	2.0			A
I^2T for fusing ($t = 8.3\text{ms}$) max.	I^2T	8			A^2S
Forward Voltage Drop max. @ $I_F = 1.00\text{A}$, $T_j = 25^\circ\text{C}$	V_F	1.0			V
Reverse Current max. @ V_{RWM} , $T_j = 25^\circ\text{C}$ @ V_{RWM} , $T_j = 100^\circ\text{C}$	I_R I_R	1.0 10			μA
Reverse Recovery Time typ. 0.5A I_F to 1.0A I_{RM} recovers to 0.25A $I_{RM(REC)}$	t_{rr}	3			μS
Junction Capacitance typ. @ $V_r = 4\text{V}$, $f = 1\text{MHz}$	C_j	18			pF

Thermal Characteristics

	Symbol	PM6	PM8	PM0	Units
Thermal Resistance-Junction to Lead Lead length = 0.375"	$R_{\theta JL}$	47			$^\circ\text{C/W}$
Lead length = 0"	$R_{\theta JL}$	19			

Maximum Characteristics

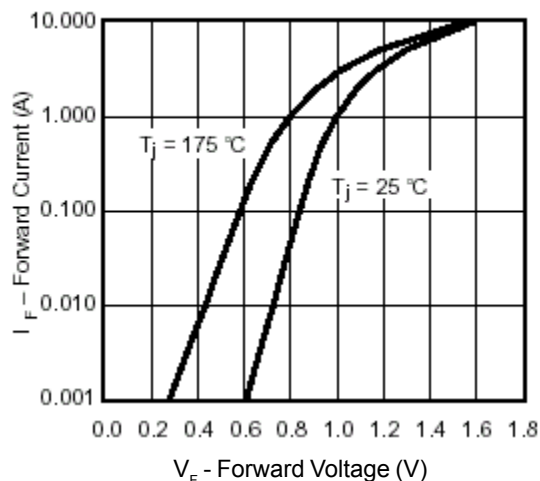


Figure 1. Forward Current vs. Forward Voltage

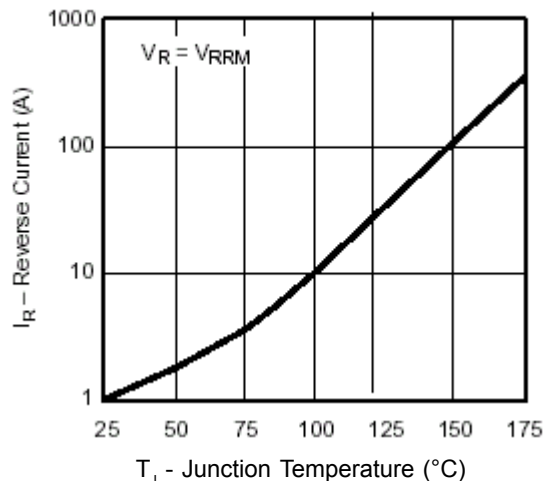


Figure 2. Reverse Current vs. Junction Temperature

POWER DISCRETES

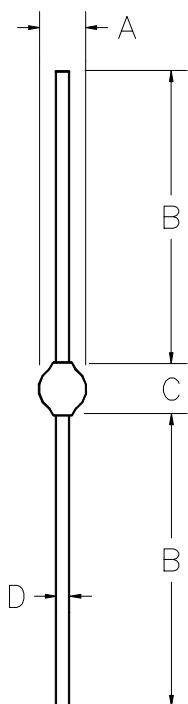
Ordering Information

Part Number	Description
PM6 PM8 PM0	Axial leaded hermetically sealed ⁽¹⁾

Note:

(1) Available in bulk and tape and reel packaging. Please consult factory for quantities.

Outline Drawing



Dimensions					
DIM ^N	Inches		Millimeters		Note
	MIN	MAX	MIN	MAX	
A	-	.150	-	3.81	-
B	1.014	-	26	-	-
C	-	.180	-	4.57	-
D	-	.032	-	0.82	-

Weight = 369mg

Contact Information

Semtech Corporation
Power Discretes Products Division
200 Flynn Road, Camarillo, CA 93012
Phone: (805)498-2111 FAX (805)498-3804